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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/350,060  | 07/08/1999  | DAVID MONROE CHAPMAN | W9443-02            | 7518             |
| 7590  | 10/20/2003  |                      | EXAMINER            | 23               |
| CHARLES A CROSS<br>W R GRACE & CO - CONN<br>PATENT DEPARTMENT<br>7500 GRACE DRIVE<br>COLUMBIA, MD 210444098 |             |                      | AHMED, SHEEBA       |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 1773                |                  |
| DATE MAILED: 10/20/2003   |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                          |                       |
|------------------------------|--------------------------|-----------------------|
| <b>Office Action Summary</b> | Application No.          | Applicant(s)          |
|                              | 09/350,060               | CHAPMAN, DAVID MONROE |
|                              | Examiner<br>Sheeba Ahmed | Art Unit<br>1773      |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 8/6/03 and 9/22/03.

2a) This action is **FINAL**.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-30 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) 1-13 and 23-30 is/are allowed.

6) Claim(s) 14-22 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

|   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>22</u> . | 6) <input type="checkbox"/> Other: _____                                    |

***DETAILED ACTION***

***Response to Appeal Brief***

1. The finality of the rejections of Paper No. 16 is hereby withdrawn and prosecution reopened in view of the new grounds of rejection set forth below. Any inconvenience to the Applicants is regretted.

***Claim Rejections - 35 USC § 102***

2. Claims 14-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Abe et al. (EP 0586846B1).

Abe et al. disclose an ink jet recording sheet comprising a support and an ink receiving layer coating (*corresponding to the coating of the claimed invention*) containing a cation-modified silica (*corresponding to the inorganic oxide of the claimed invention*) (Page 1, lines 57-58). The cation-modified silica is coated with a metal oxide such as aluminum oxide. The ink receiving layer contains various polymers such as polyvinyl alcohol (*corresponding to the water soluble polymer of the claimed invention*) and polyvinyl acetate (*corresponding to the non-ionic latex of the claimed invention*) used in combination with a cationic polymeric surfactant (Page 2). The coating is provided on the substrate in an amount of 10 g/m<sup>2</sup> (*thus meeting the limitations of claim 22*) (Page 5, lines 45-46). The Examiner takes the position that the silica disclosed by Abe et al. must have the claimed pore volume given that the chemical composition and the method of making the silica disclosed by Abe et al. and that of the claimed invention are identical as evidenced by the fact that the Applicants specifically state on Page 14 of the Specification that the cationic materials of the instant invention are prepared by the techniques given in US 3,007878 and Abe

specifically states that their cation modified silica is prepared by the method described in US 3,007,878. All limitations of claims 14-22 are either inherent or disclosed in the above reference.

### ***Response to Arguments***

3. Applicant's arguments filed on August 6, 2003 (Paper No. 21) have been fully considered but they are not persuasive.

Applicants traverse the rejection of claims 14-22 under 35 U.S.C. 102(b) as being anticipated by Abe et al. (EP 0586846B1) and submit that Abe does not disclose a porous inorganic oxide having a pore volume of 0.6 to 3.0 cc/g and that US 3,007,878 goes no further in showing that the instant invention is anticipated. Applicants submit that the facts asserted to be inherent, i.e., the porosity, have not been established as "necessarily present". However, as previously pointed out, the Examiner has taken the position that the silica disclosed by Abe et al. must have the claimed pore volume given that the chemical composition and the method of making the silica disclosed by Abe et al. and that of the claimed invention are identical as evidenced by the fact that the Applicants specifically state on Page 14 of the Specification that the cationic materials of the instant invention are prepared by the techniques given in US 3,007,878 and Abe specifically states that their cation modified silica is prepared by the method described in US 3,007,878. In other words, the silica disclosed by Abe et al. and that of the claimed invention **must be** identical, i.e., must be porous and have the same porosity, given that both are prepared by the same process, i.e., the process described in US 3,007,878.

Applicants further argue that Abe does not disclose a non-ionic latex. However, the Examiner would again like to point out that Abe simply discloses a polyvinyl acetate latex. It is clear from the chemical structure of polyvinyl acetate that the structure does not carry a charge and is hence non-ionic and it is the Examiner's position that polyvinyl acetate can be rendered cationic or anionic by the appropriate modification but a non-modified polyvinyl acetate is simply non-ionic.

***Allowable Subject Matter***

4. Applicants arguments regarding claims 1-13 and 23-30 were deemed persuasive and hence claims 1-13 and 23-30 are allowed.

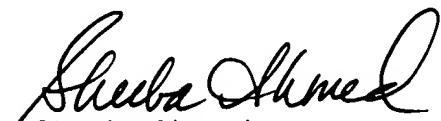
***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheeba Ahmed whose telephone number is (703)305-0594. The examiner can normally be reached on Mondays and Thursdays from 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on (703)308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-5408 for regular communications and (703)305-3599 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-5665.



Sheeba Ahmed

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October 16, 2003